



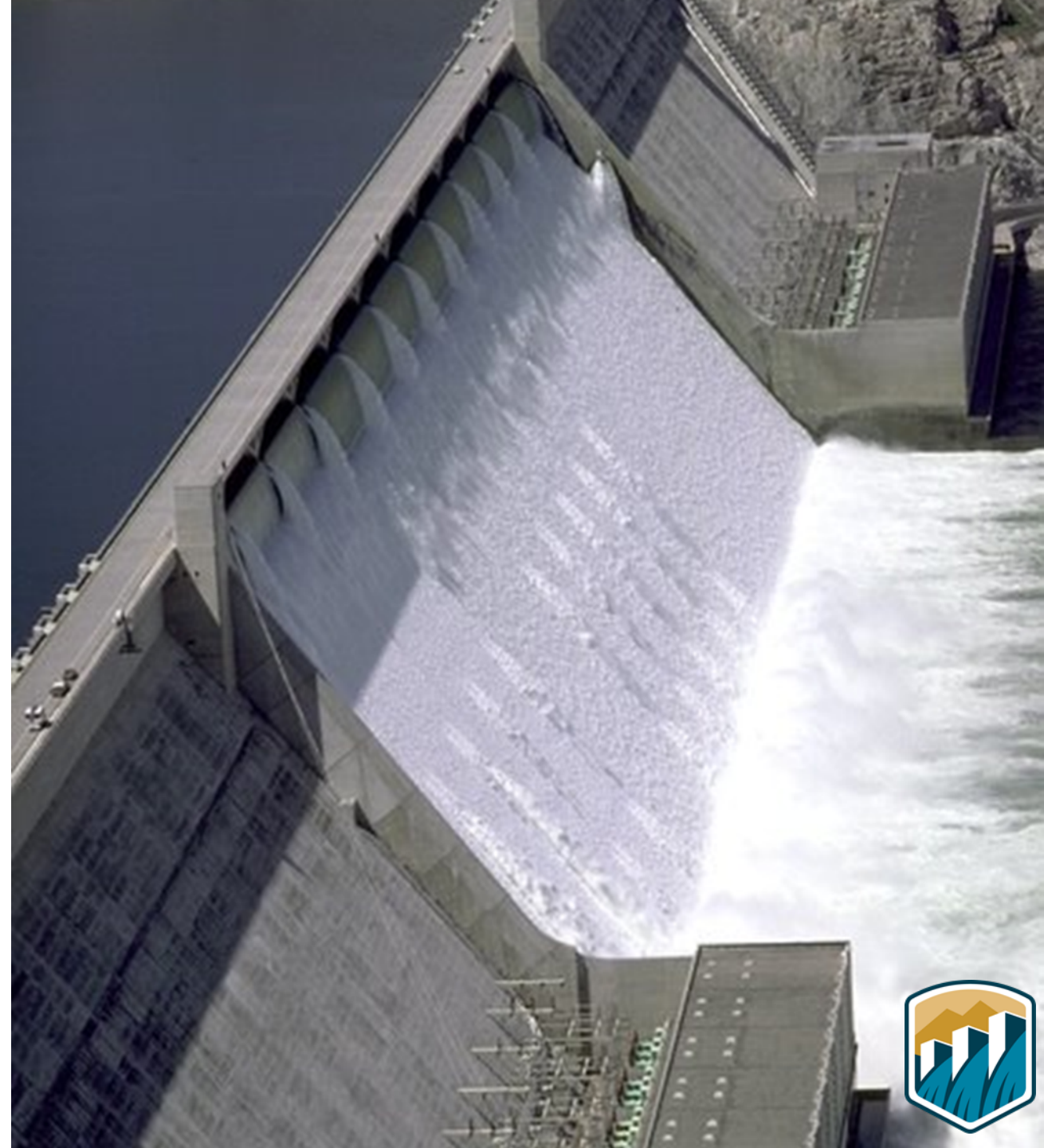
— BUREAU OF —
RECLAMATION

Infrastructure Management

Stakeholder Workshop
October 21, 2020

Presentation Overview

- Major Rehabilitation and Replacement (MR&R)
 - History
 - Data Collection and Reporting
 - Categorization
 - Importance to Reclamation and Stakeholders
- Reclamation Transparency Act
 - Background
 - Requirements
 - Strategy
- Interactive Session



What is MR&R?

- **Extraordinary Maintenance (XM)**
 - Facility's annual O&M budget $\geq 10\%$
 - Total Cost for all structures $\geq \$100,000$
 - Total Cost for buildings $\geq \$20,000$
- **Safety of Dams Modifications (SOD)**
- **Deferred Maintenance (DM)**
- **Reported on Transferred and Reserved Works**



MR&R Data Collection Process

- Annual Data Call
- 30-Year Planning Horizon
- Ongoing/Planned MR&R activities
 - Work Description
 - Cost Information
 - Categorization of Relative Importance



Purpose of MR&R Reporting

Evaluate and Report

Condition of Reclamation's infrastructure

Identify

Infrastructure investment activities through the next 30 years

Incorporate

Reclamation's priorities (categorization) for addressing activities into funding processes

Schedule

Critical and urgent work activities

Continue

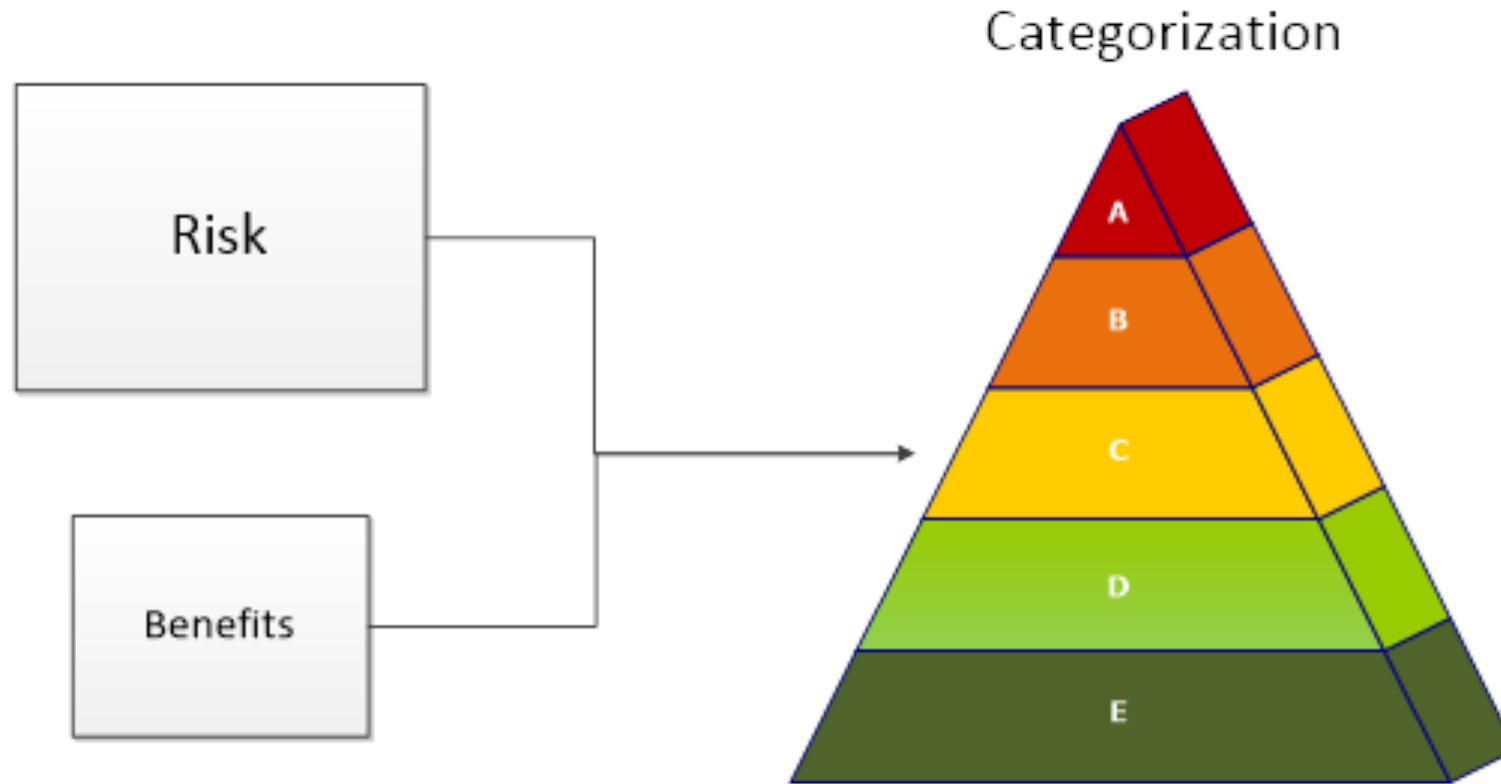
To deliver project benefits and preserve structural safety of project facilities

Track

Status of work activities



Categorization



2020 MR&R Results

Overview stats:

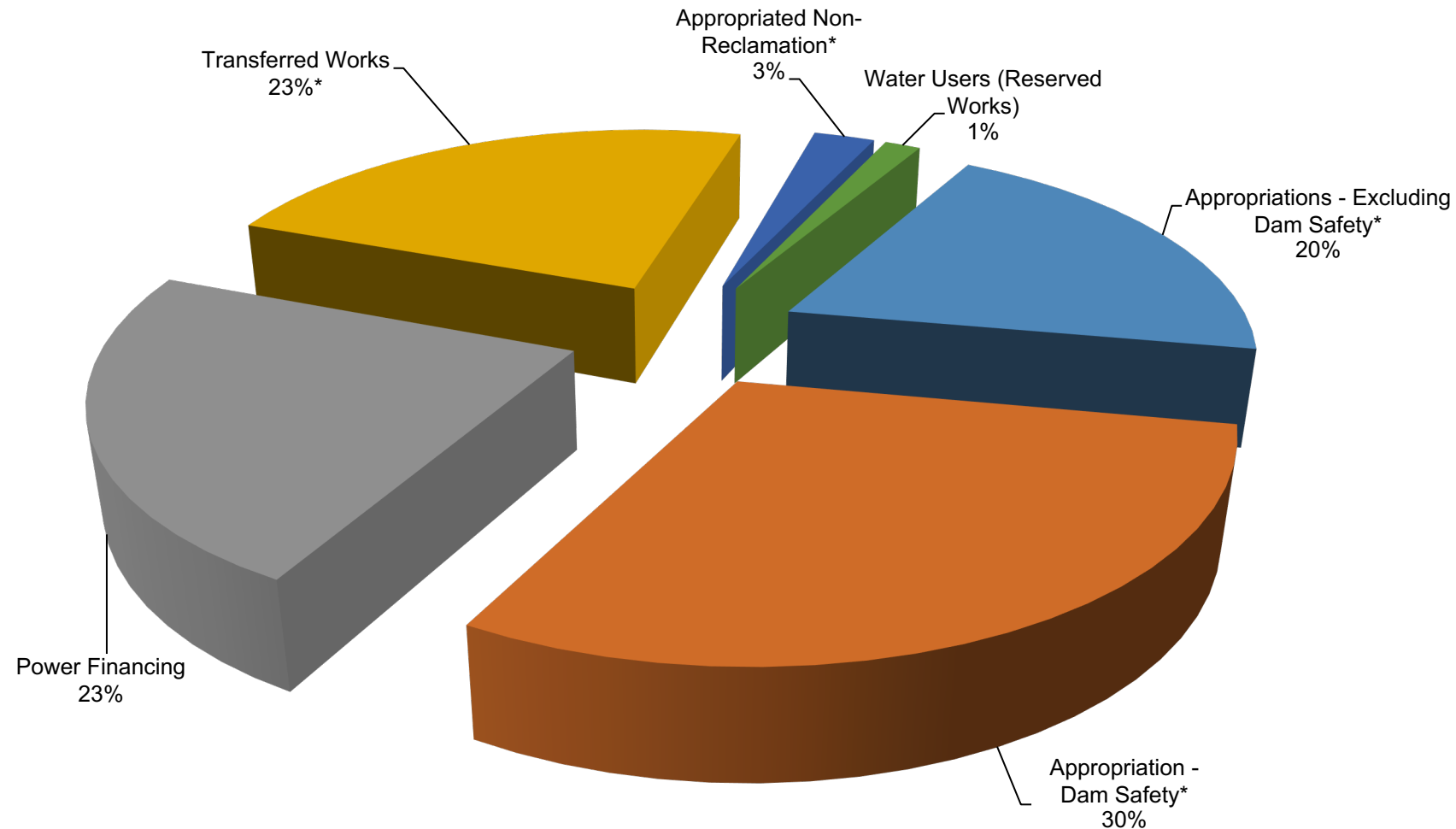
- 2,520 MR&R activities
 - 13% increase from FY 2019
- Reclamation's 30-year MR&R need is \$11.9 billion*
- Reclamation's 5-year MR&R need is \$4.6 billion*

* Level of cost estimates vary from preliminary to final; cost estimates include non-contract and construction costs



Anticipated MR&R Funding Categories

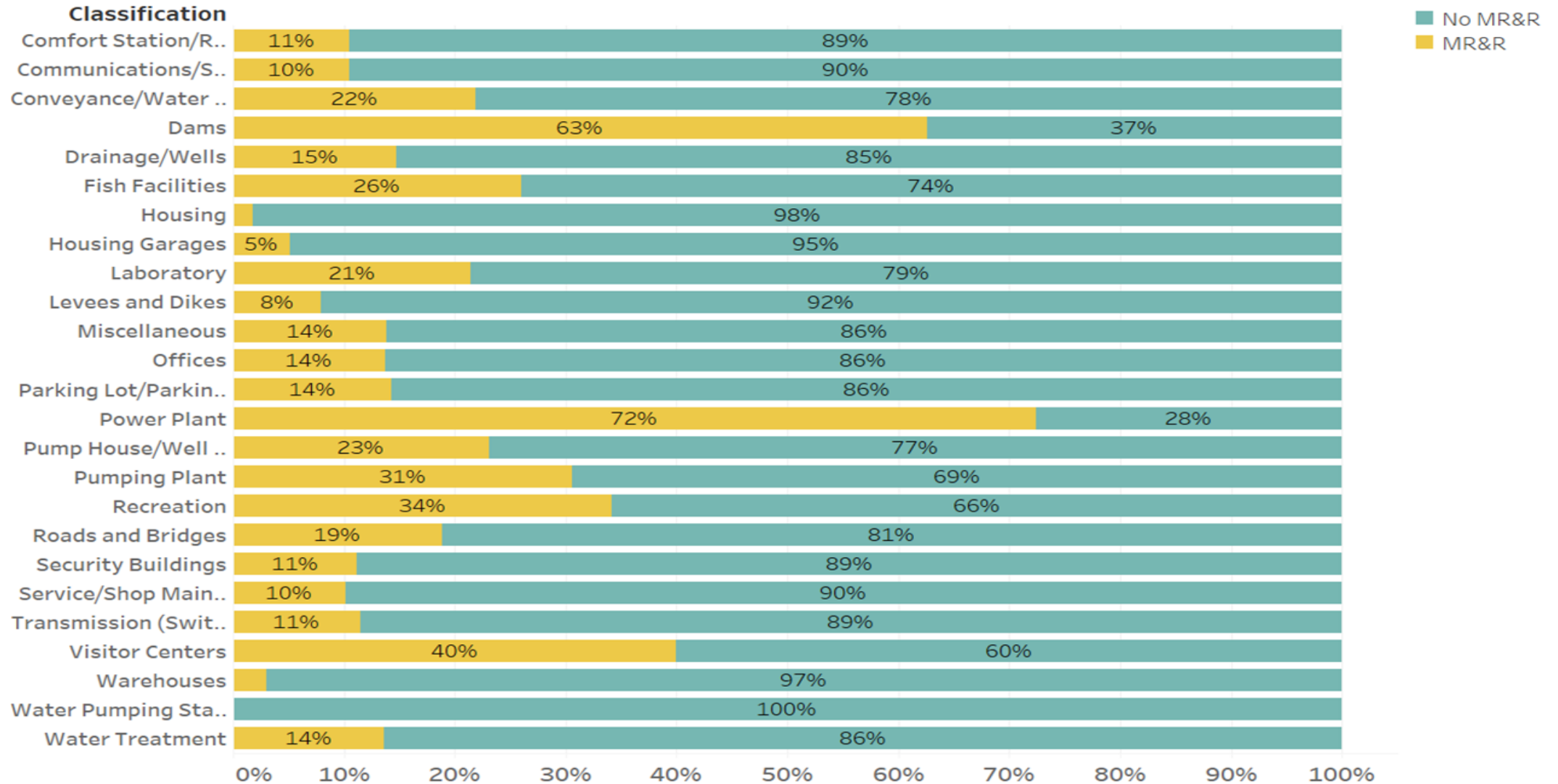
MR&R Estimate Funding Categories FY 2021-2025



* Subject to Appropriations



Percent of Reclamation assets with MR&R reported vs. no MR&R reported



MR&R Data Visualization Live Dashboard



Bureau of Reclamation Major Rehabilitation & Replacement Overview

Last Update: 9/17/2020 2:10:11 PM

State

All

BOR Project

All

Asset Name

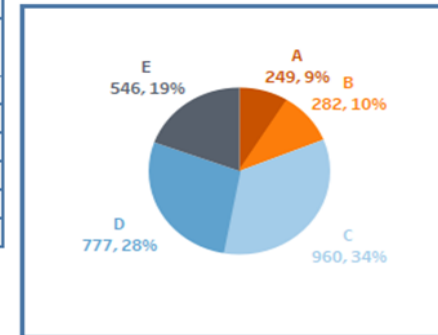
All

TW/RW Indicator

All

BOR Region	MR&R Category							
	DM		SOD		XM		Grand Total	
	Number of Activities	MR&R Planned (FY2021-2050)	Number of Activities	MR&R Planned (FY2021-2050)	Number of Activities	MR&R Planned (FY2021-2050)	Number of Activities	MR&R Planned (FY2021-2050)
California-Great Basin	561	\$184.6M	3	\$1,079.2M	499	\$2,628.6M	1,063	\$3,892.3M
Columbia Pacific-Northwest Basin	79	\$62.0M	3	\$775.6M	468	\$3,961.2M	550	\$4,798.9M
Lower Colorado Basin	10	\$28.1M			250	\$547.6M	260	\$575.8M
Missouri Basin & Arkansas Rio-Gran..	125	\$33.7M	4	\$101.0M	220	\$562.8M	349	\$697.5M
Upper Colorado Basin	6	\$1.9M	2	\$141.8M	584	\$1,744.3M	592	\$1,888.0M
Grand Total	781	\$310.4M	12	\$2,097.5M	2,021	\$9,444.6M	2,814	\$11,852.5M

Categorization Rating Summary



BOR Region

- California-Great Basin
- Columbia Pacific-Nort..
- Lower Colorado Basin
- Missouri Basin & Ark..
- Upper Colorado Basin

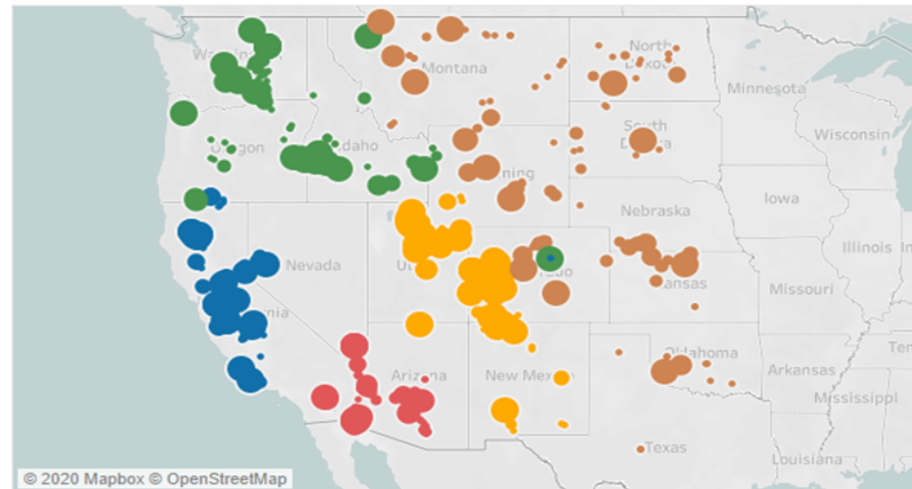
Portal Home

Funding Horizon

Asset Class Major Rehabilitation & Replacement Summary

Asset Class	Number of Activities	MR&R Planned (FY2021-2050)
Comfort Station/Restroom	2	\$0.5M
Communications/SCADA	9	\$19.2M
Conveyance/Water Carriage..	716	\$3,629.2M
Dams	844	\$4,616.9M
Drainage/Wells	35	\$208.7M
Fish Facilities	55	\$289.7M
Housing	10	\$0.8M
Housing Garages	2	\$0.0M
Laboratory	12	\$4.9M
Levees and Dikes	12	\$14.4M
Miscellaneous	50	\$113.7M
Offices	54	\$73.7M
Parking Lot/Parking Structu..	5	\$1.1M
Power Plant	439	\$1,792.9M
Pump House/Well House	3	\$0.1M

Activities - Asset Locations



MRR Planned Funding

- ≤ \$1,000,000
- \$5,000,000
- \$10,000,000
- \$15,000,000
- ≥ \$20,000,000

* Level of cost estimates vary from preliminary to final; cost estimates include non-contract and construction costs



Future and Ongoing Activities

**Long-term
Strategy
focused on
Asset
Criticality**

**Data Driven
Approach to
Prioritization
and
Workforce
Planning**

**Identify
Alternative
Funding
Opportunities**

**Identify Key
Operational
Efficiencies**

**Maximize
Useful Life**

**Reduce
Repair and
Maintenance
Cost**



John D. Dingell, Jr. Conservation, Management, and Recreation Act, P.L. 116-9

Title VIII – Water and Power, Subtitle G – Reclamation Transparency Act (Section 8601)

Asset Management Plan every 2 years to include:

- Assessment of major repair needs
- Itemized list of repair needs by facility
- Level of cost estimate
- Appropriations needed to complete each item
- Categorical rating for each repair item



Schedule for Implementation

- March 2019 – Signed into law
- March 2021 – Asset Management Plan for reserved works
- March 2023 – Asset Management Plan for reserved and transferred works
- Asset Management Plan updates every two years after for reserved and transferred works



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Interactive Session

- What is your maintenance philosophy? (e.g., preventative, breakdown, reliability centered maintenance, etc)
- How do you plan infrastructure projects?
- How do you finance infrastructure projects?
- What is the best way for Reclamation to collect information from you?
- What services or assistance can Reclamation offer you to help facilitate the management of Reclamation-owned assets?
- What Reclamation programs would you like to know more about or have interest in participating in?
- Opportunities for collaboration (financing, capital improvement planning, etc.)